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Affordable High-Performance Green Redox Flow Batteries

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HIGREEW – Deliverable Report

<< D7.6 – LCOS analysis >>



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Publishable summary

HIGREEW project will end up with the installation of a fully functional 5 kW / 20 kWh prototype AORFB, however it is very important to analyze the cost of this prototype and the scalability of the technology to know if it will have place in the market. The LCOS serves to reflect the weight of each component in the total cost.

In this report the LCOS has been analyzed to understand the status of the technology in terms of cost competitiveness. This analysis has been done for three different cases:

1. Case Study 1: The HIGREEW Prototype
2. Case Study 2: Scale-up CAPEX Analysis Based on 30 kW-120 kWh Redox Flow Battery Modules
3. Case Study 3: Scale-up Analysis Utilizing Literature Data

The LCOS could be analyzed in different ways, whereby the differences are mainly found in the number of parameters that are considered in the calculation. In this report the following items it have been considered for the LCOS:

1. CAPEX
2. OPEX
3. Lifetime of the battery
4. DOD
5. Capacity
6. Round trip efficiency
7. Financial impact
8. Charging cost

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Project partners:

#	Partner	Partner Full Name
1	CICe	CENTRO DE INVESTIGACION COOPERATIVA DE ENERGIAS ALTERNATIVAS FUNDACION, CIC ENERGIGUNE FUNDAZIOA
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3	UAM	UNIVERSIDAD AUTONOMA DE MADRID
4	CNRS	CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE CNRS
5	C-TECH	C-TECH INNOVATION LIMITED
7	UWB	ZAPADOESKA UNIVERZITA V PLZNI
8	PFES	PINFLOW ENERGY STORAGE, S.R.O.
9	UNR	UNIRESEARCH BV
10	SGRE	SIEMENS GAMESA RENEWABLE ENERGY
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